

Dothineritic typhoid fever may occur to an extent comparatively very moderate, and yet be fully identified. One case, during the above described period, went through a well-marked course in eleven days. It was indicated by slow approach, general debility, moderate meteorism, pain in the abdomen near the umbilicus, tenderness in the right iliac region, eruptions of both kinds, diarrhoea, some bronchitis, and some emaciation. The disease being mild, the loss of strength and flesh was not excessive.

*Exhaustion from Heat (Sun-stroke).*—In reply to a question on the subject from Dr. Bell, Dr. LEVICK made the following remarks upon some cases:—

From the 26th to the 29th of June, inclusive, there were six persons admitted into the Pennsylvania Hospital suffering from the effects of heat, or, as it is popularly known, from sun-stroke. The thermometer (Fahrenheit) in the shade indicated a temperature of 94°; while under exposure to the rays of the sun, the heat was intense.

The first patient admitted was a German, æt. 22 years. He had been at work for ten hours in a sugar refinery, boiling sugar; had been in good health until late in the afternoon, when he became giddy, fell, and was brought to the hospital in a state of insensibility. When admitted, he had a feeble and frequent pulse, and was with much difficulty made to swallow. The treatment consisted in the exhibition of ammonia, the application of ice to the head, the use of strong mustard foot-baths, and injections of turpentine. Next morning his intelligence had returned, and his recovery was rapid.

Two men were brought late in the afternoon of the following day. They presented symptoms almost identical, and may be described together. They were large and robust Irish labourers, about 35 years old, had been at work on the railway, fell over insensible, and were brought at once to the hospital. When admitted, the skin was warm, but not of that pungent heat which is sometimes noticed; the head hotter than the body; pupils somewhat dilated; pulse 130, and scarcely to be counted; respiration stertorous, and mingled with tracheal râles; the heart acting rapidly, but its sounds feeble; deglutition impossible. *Treatment.*—Strong mustard foot-baths, cold to the head, stimulating injections. Both died two hours after admission. An attempt was made, ten hours after death, to make an examination, but putrefaction had already occurred to such an extent as to render it impossible.

Case 4 was a captain of a small vessel on the Schuylkill River; fell over, was bled, and then brought to the hospital in a state of incomplete unconsciousness. *Treatment.*—Cold to the head, mustard foot-baths, and injections of oil of turpentine. This patient's recovery was a rapid one, and he left the hospital five days afterwards. On the following day he died suddenly, out of the house; but nothing could be learned of the nature of this attack.

Case 5. A Cuban, aged 28 years, a seaman, was admitted late in the afternoon. As was subsequently learned, he had walked from Richmond (in the upper part of the town), with mats for sale; that he felt giddy, things looked

blue around him, and he fell over insensible. He was picked up in Washington Square, and brought in this state to the hospital. *Condition at time of admission.*—Skin warm, not hot; head warmer than trunk; pupils contracted; pulse 120 to 125; respiration sighing and moaning; deglutition impossible, liquids put into his mouth passing into the larynx. *Treatment.*—Cold to the head, mustard foot-baths, injections of oil of turpentine (f3j) every half hour. Under this treatment a gradual improvement took place, and on the following morning he had so far recovered as to give the above account of himself. Two years before, he had had a similar attack while in Callao. After this, the improvement was rapid, and he left the house four days later.

Case 6. A seaman, aged 23 years, born in Ireland; admitted a few minutes after the last-named patient. *Condition at time of admission.*—Complete mental unconsciousness, with total inability to swallow; skin moderately warm; pupils nearly natural; pulse frequent and feeble. *Treatment.*—Same as preceding case. On the next morning his intelligence had returned, and he gave the following history of himself: He had walked from Fifteenth and Lombard Streets to Market Street wharf, felt some headache, then walked up Chestnut Street; became dizzy, felt as if drunk, then became insensible. This occurred at about 5 o'clock P. M.; an hour later he was brought to the hospital. He left the house, at his own request, four days later, entirely well.

Besides the above, six more patients were brought to the house as cases of sun-stroke. Two of this number were young hysterical women. In both instances they had walked a great distance, and had fallen insensible. The first of these presented so many of the symptoms of sun-stroke as to have been largely bled before she was brought to the hospital. Under the treatment above mentioned, her recovery took place, though but slowly. The second presented but few alarming symptoms, being a case of hysterical convulsions, in which the heat and fatigue seemed to be the exciting cause. A third case was that of an epileptic patient, whose attack was an unusually severe one, and was attributed by his friends to a long and fatiguing walk in the heat of the day. The fourth and fifth were cases of sun-stroke, occurring to labourers, under circumstances similar to those before mentioned, and presenting similar phenomena. Both of these recovered under the treatment already mentioned.

The last of the cases alluded to was a lad, æt. 17, employed on a canal-boat. He had been engaged during the morning in unloading coal at a wharf in New York, while doing which he complained of pain in the head, and fell over in a convulsion. He remained in a state of stupor, and was brought to Trenton in the canal-boat, unprotected, and thence by railway to Philadelphia. At the time of his admission he was in a semi-stupid state, but could be roused with some exertion. He had at this time ptosis of the right eye, with occasional delirium and other symptoms of inflammation of the brain, for which latter affection he was put under the use of calomel, in small and repeated

doses, blister to the nape of the neck, &c. After death there was found extensive inflammation at the base of the brain.

There are two or three points of interest in the preceding cases, which may be briefly alluded to. It will be noticed that in all of these the attack occurred in the latter part of the day—from four to six o'clock P. M.—at a time when the exhausting effects of prolonged labour were likely to be most felt. With but one exception, and that by no means a positive one, every man was a foreigner. The subjects of these attacks were not, as might be supposed, persons enfeebled by age or previous sickness. Their ages varied from 17 to 40, the majority being between 20 and 30 years of age.

While the results were somewhat satisfactory, it would lead to false inferences were all the cases reported classed with those of sun-stroke, the mortality of which is known to be so fearful. Of the first six cases reported, it will be noticed, two were moribund at the time of their admission. Cases 5 and 6 were of the gravest character, genuine cases of sun-stroke, with the absence of one symptom which is justly looked upon as highly alarming—a hot, pungent skin. Cases 1 and 4 were of a very serious character, though not quite to the extent of those just mentioned. Of the remaining cases, two were well-marked instances of sun-stroke; while three, occurring as they did in epileptic and hysterical persons, can afford no information as to the ordinary phenomena and results of the disease.

So far as the pathology of the affection is concerned, we may at once say that the cases before us, with one exception, coincide in representing it to be a condition of exhaustion, rather than of stimulation or cerebral congestion. The last case would tend to confirm the received opinion that different conditions may result from the same cause, in this instance terminating in cerebral inflammation, in the others in nervous exhaustion. For these different conditions different modes of treatment are required, and the diagnosis of the two becomes a matter of the utmost importance; but there can be no doubt in the minds of all whose opportunities for observing such cases have been frequent, that in *by far the greater number of cases of sun-stroke it is depression, not excitement, which we are to combat.* To have bled in any of the cases mentioned, would have been worse than useless, even the case of cerebral inflammation having never been in a condition to permit the use of the lancet while with us.

The treatment adopted presents but little novelty. Stimulating enemata, where deglutition is impossible, have been long resorted to, but it is worthy of consideration whether there may not a special value attach to the spirit of turpentine in these cases. It is, to say the least, an interesting coincidence that the remedy which has been found of value in malignant fevers should be used with advantage in this disease, in which the blood presents after death much the same character as it does after typhus.

If one principle were more insisted upon than another in the treatment of these cases, it was the importance of avoiding any expenditure of the little

remaining strength of the patient. With this view the foot-tub was placed in the bed, the patient remaining on his back. Though recommended in such cases, the full bath is not without danger. The chief indication for its use is in the stimulus afforded by the *hot* bath, for which in practice the *warm* bath is too often substituted. The removal of the patient to the bath-room is rarely effected without some exertion or resistance on his part, while the depressing influence of the *warm* bath may fatally exhaust the forces which barely maintain the balance between life and death. For these reasons none of the preceding patients were put in the bath.

It is somewhat surprising that so little has been said or written on this subject, for, excepting on the field of battle, it is rare that persons are in such numbers so suddenly and so hopelessly struck down while in the vigour of health, of strength, and of youth.

Dr. CARSON said, that in the summer of 1830, while he was resident-physician in the Almshouse Hospital, he observed a number of fatal "cold water" cases, as they were then called, which all appeared to be rather cases of exhaustion from heat and rum drinking than from the sudden imbibition of pure cold water. The great heat of skin was characteristic. These patients were, all of them, broken down from intemperance and bad living, and came from a very bad neighbourhood. The mortality among them was great.

Dr. T. H. BACHE stated that during the summer of 1853, while resident-physician at the Pennsylvania Hospital, he had attended a number of sun-stroke cases, and that the mortality was very great, hardly a single case recovering. The treatment adopted was a stimulating one; but, prior to admission, some of the cases had been bled.

When allowed by the friends, *post-mortem* examinations were made, and the pathological appearances noted at the time. He could not recollect the precise lesions observed, but might at a future time give an abstract of them to the College. One thing, however, he did remember; and that is, that they did not confirm the statements made by Drs. Pepper and Reed (*vide Trans. Coll.*, vol. iii. p. 100), in regard to softening of the heart.

Dr. BELL remarked, that cases of illness from heat might and did occur, which could not be fairly denominated sun-stroke. These cases might have symptoms of excitement, and might bear bleeding without serious injury. He referred to one instance in which free venesection had been ventured on, and yet the man recovered. Dr. Bell also related an instance of the rapid decomposition after death, which had been mentioned as characteristic of sun-stroke.

Dr. COATES well recollected the time when cautions against sudden death from excess in drinking cold water while the body was excited, and during the intense heats of summer, were thought of so much consequence as to be posted, by order of the Humane Society, on the pumps designed for public use throughout the city. Between 1814 and 1819, while he inhabited the Pennsylvania

Hospital, persons alleged to be suffering from this cause were frequently brought to the institution. They were, in nearly or quite every instance, visibly under the influence of ardent spirits; the remedy then advised by authoritative men and the employment of which was warmly seconded by tavern-keepers. It was the unanimous conviction of those who attended them at the hospital that their symptoms indicated disease of the brain, and, probably, congestion, rather than the spasmodic affection of the stomach described by Dr. Rush. This last, however, he had seen, but in very few instances. The cephalic cases received little other treatment than rest, silence, a gloomy room, cold to the head, mild stimulants to remote parts of the skin, laxatives, and a cool, abstemious, and sedative diet. The impression on his mind was that there was almost entire success. He had not examined the hospital records on this point, but he had no clear recollection of any death in such a case. Their patients of this class were generally young and in the vigour of life.

It had often struck him how exact a reverse to what might have been expected really took place when the use of ice became popular in Philadelphia. When the luxury was first made abundant and cheap in our city, the greatest terror of destructive effects from excess in its use by the young, ignorant, and imprudent, was almost universal; and the newspapers were thickly bestrewn with remonstrances against the imagined frequency of suicide by ice cream. Thus, while cold refreshments were few and moderate, they were charged with the production of sickness and with manslaughter; while, since they have become abundant and really excessive, the danger appears to have been forgotten.

*August 4. Foreign Body in the Ear.*—Dr. CORSE read the following report of a case of this:—

A little girl, aged 7 years, daughter of Simon King, was brought to my office with something in her ear. She had been to several physicians already, and the meatus auditorius externus was swollen, bloody, and inflamed. On examination by speculum, I was at first inclined to the belief that the parents were mistaken as to the existence of a foreign body in the ear; but they assured me that the object had been distinctly seen, and the little girl said it was a stone.

On further examination by means of a probe, I could feel a hard body at the bottom of the canal; and on further inquiry, I was informed that her ear had been pulled at very much, and that a considerable amount of blood had flowed from it. I then supposed the membrana tympani to have been ruptured, and that the hard body felt was the petrous portion of the temporal bone, for the probe did not cling to it as to a stone, or bone denuded of its periosteum. I have since been led to suppose that the slippery feel was due to blood coagulated or encrusted on the stone. I made efforts to move the body with a probe, but it was immovable. After a close and attentive examination, I was unable to make up my mind satisfactorily as to the precise